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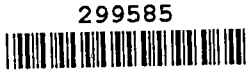
COMMUNITY INVOLVEMENT PLAN

DIAMOND HEAD OIL SUPERFUND SITE REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

Harrison Avenue
Kearny, Hudson County
New Jersey

February 2003



Community Involvement Plan

for

Diamond Head Oil Superfund Site
Remedial Investigation/Feasibility Study

Harrison Avenue
Kearny, Hudson County
New Jersey

Response Action Contract No. 68-W6-0036
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Prepared by:

CH2M HILL, INC.

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Introduction

Section 1 Introduction

The U.S. Environmental Protection Agency (EPA) is conducting an investigation into the contamination found at the Diamond Head Oil site located on Harrison Avenue in Kearny, Hudson County, New Jersey. The project, formally known as the Diamond Head Oil Remedial Investigation and Feasibility Study (RI/FS), is conducted under the federal Superfund program and has the following objectives:

- Obtain information on the nature and extent of soil and groundwater contamination associated with the site
- Evaluate the human health and environmental risks associated with this contamination, and
- Identify the appropriate actions to remedy these risks

EPA has prepared this Community Involvement Plan (CIP) to:

- Identify issues of potential community concern associated with the site and the planned RI/FS activities, and
- Provide a basis for establishing communication with the community during the RI/FS activities at the site

The CIP consists of the following sections:

- Section 1 - Introduction
- Section 2 - Site Background
- Section 3 - Project Description
- Section 3 - Community Concerns and Information Needs
- Section 4 - Community Involvement Program
- Attachment A – Glossary of Key Terms
- Attachment B – List of Site Contacts

This Community Involvement Plan describes activities required to meet the provisions of the National Oil and Hazardous Substances Pollution Contingency Plan (known as the National Contingency Plan - NCP) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Congress passed the CERCLA in 1980 to correct the problems of abandoned or uncontrolled hazardous waste sites that threaten public health or the environment. The CERCLA created a tax on chemical industries that went into a trust fund called Superfund. Under the Superfund program, EPA can pay for investigating and cleaning up problems at hazardous waste sites if those responsible cannot be found or they are unwilling or unable to pay. The law also permits EPA and states to require those responsible for the contamination to investigate and conduct remedial activities at their sites or reimburse EPA for doing the work. The CERCLA, was amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). CERCLA provided for the development of the National Contingency Plan. The NCP provides the organizational structure and procedures for preparing for and responding to releases of pollutants to the environment and defines the process to follow in conducting RI/FS activities and selecting and implementing remedies that address the risks identified as being associated with these pollutant releases.

In addition to conforming to CERCLA and NCP requirements, this CIP has been developed in accordance with EPA guidance for conducting community involvement programs for Superfund sites. This CIP reflects current knowledge of site contamination. As work progresses and more information becomes available on site conditions and contamination, the EPA will review and revise this plan to reflect this new information and any additional needs for community involvement.

Section 2
Site Background

Section 2 Site Background

This section describes existing information on site background, history, and known contamination. More detailed information may be found in the *Revised Work Plan Diamond Head Oil Remedial Investigation and Feasibility Study, December 2002.*

Site Setting

The Diamond Head Oil Site is currently inactive and consists of approximately 15 acres of undeveloped land located near the Hackensack Meadowlands. Exhibit 1 shows the location of the site. Exhibit 2 is a site plan, which also shows the locations where samples were collected during the last two site investigations. The property is currently owned by the Hudson Meadows Development Corporation (HMDC).

The site is bordered on the north by Harrison Avenue, on the east by the entrance ramp of Interstate 280 (I-280), on the south by a drainage ditch bordering I-280, and on the west by a salvage operation. The area surrounding the site is industrial; there are no residential areas in the vicinity of the site. A well survey performed as part of the Hazard Ranking System (HRS) Documentation Package concluded that there are no public supply wells within four miles of the site.

The site is flat over the east section – where the former oil reprocessing area /lagoon were located and over the west section between the landfill and the Public Service Electric and Gas (PSE&G) right-of-way. A change in elevation of approximately 10 to 15 feet above the east and west sections of the site demarcates the boundary of the former landfill.

Approximately 70 percent of the site is currently covered by Phragmites up to 12 feet tall. Flooding has been observed following heavy rainfall over the southern sections of the site. On aerial photographs from 1990, a wetland area is observed to have developed in the southern section of the site where part of the former lagoon was located and had been filled during the construction of I-280. A wetland delineation study performed in 1990 and included in the HRS Documentation Package confirmed the presence of two small wetland areas in the southern portion of the site. The study concluded, however, that the previous historical degradation of the site has severely affected the limits and the quality of these habitats. One of the wetland areas is completely surrounded and impacted by fill with the other area displaying similar disturbance and utilized primarily as a drainage swale for I-280 and surrounding street and industrial property runoff. There are currently no markings at the site to indicate the limits of these wetland areas.

Site History

The Diamond Head Oil Refinery Site is a former oil reprocessing facility, which was in operation from February 1, 1946 to early 1979. During facility operations, multiple aboveground storage tanks (ASTs) and possibly underground pits were used to store oily wastes. These wastes were intermittently discharged directly to adjacent properties to the east and the wetland area on the south side of the site, creating an oil lake. The following three areas of operations, which may act as continuing sources of site contamination and the outlines of which are currently still visible at the site, developed over the years of site operation:

- A landfill – with an approximate area of 7 acres
- The oil reprocessing section of the site – with 2 buildings, multiple ASTs, drum storage areas, and possibly underground pits
- An oil lagoon –with an approximate area of 5 acres located over the south section of the site and extending outside the site boundaries to the east and south

In 1968, the New Jersey Department of Transportation (NJDOT) acquired the property to the south of the site, and in 1977, when beginning construction of I-280, reportedly removed nine million gallons of oil-contaminated water and five to six million cubic yards of oily sludge from the oil lagoon. It is also reported that during the I-280 construction, an underground "lake" of oil-contaminated groundwater was found extending from the eastern limits of the I-280 right-of-way to Frank's Creek to the west of the site. During the process of constructing I-280, the entire oil lagoon was apparently filled, as it no longer appears on post I-280 construction-aerial photographs.

From the close of operations in 1979 until 1982, the abandoned site was not completely fenced. During this time, it was reported that dumping of oily wastes and other debris took place at the site. Eastern Chemical Co. was hired to clean up the site in May 1982. In order to do so, the materials in the tanks were analyzed and found to contain polychlorinated biphenyls (PCBs) at a concentration of 206 parts per million (ppm). Subsequent analyses of the same materials revealed the presence of PCBs at concentrations of over 3,300 ppm. Approximately 7,500 gallons of materials were apparently pumped out of the tanks and disposed off-site. In the same time frame, an additional 27 tons of contaminated soil were apparently removed from the site. Finally, aerial photographs from 1982 show that the reprocessing infrastructure of the site had been dismantled.

The preliminary long-term plans for the site are for the development of an office building.

Geology and Hydrogeology

Site geology (based on several shallow borings installed at the site during previous investigations) consists of varying thickness of fill materials overlying native sands and clays. A layer of peat and/or organic silt and clay was present in most borings at 14 to 18 feet below the ground surface.

The groundwater table is shallow at approximately 1 to 2 feet below the ground surface.

Previous investigations conducted at the site suggest that groundwater flow is to the west. During one of the site visits made during the planning of the RI activities, 0.6 feet of free product were measured in monitoring well MW-3 located in the former lagoon area; product had also been noted in this well during previous investigations conducted at the site. Two other wells MW-5 in the landfill area and MW-2 in the northeast portion of the site were checked for free product during the same site visit and were found not to contain any.

Summary of Existing Site Contamination Information

Four previous investigations have been conducted at the site including a sampling event conducted by the New Jersey Department of Environmental Protection (NJDEP), an

Environmental Site Characterization conducted by Killam Associates, and two Site Inspections conducted by EPA's Region 2 Field Investigation Team (FIT).

During these investigations, groundwater, surface water, sediment, surface and subsurface soil, liquid waste, and solid waste samples were collected. Analytical results of these samples indicated the presence of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, PCBs, and metals in the various sampled media. Because the analyses of the samples collected by NJDEP and Killam Associates were performed outside of EPA's Contract Laboratory Program (CLP), the results were not validated, and the locations of some of the samples are unknown. The results from these two sampling events were therefore, used only as an indication of the presence of contamination at the site and to assist in developing the scope for the current remedial investigation. These results will not be used to perform the ecological and human health risk assessments or to support the RI/FS decision-making process.

The two investigations performed by EPA are described below. EPA is in the process of summarizing the results of these investigations. These summaries will be provided to the community as addenda to this CRP.

EPA 1991 Site Inspection

As part of a 1991 Site Inspection, EPA collected four groundwater, three surface water, three sediment, seven surface soil, one subsurface soil, three liquid waste, and two solid waste samples. The general sampling locations are shown on Exhibit 2. Samples were analyzed for Target Compound List (TCL) organics and Target Analyte List (TAL) metals and indicated the presence of both organic contaminants and metals at the sampled locations.

EPA 1999 Expanded Site Inspection

In December 1999, EPA conducted an Expanded Site Inspection (ESI) at the site, which included the installation of 20 soil borings within the reprocessing/lagoon section of the site. Samples were collected from 0 to 2 feet and at a lower depth within each boring. EPA also collected 15 sediment samples from the on-site wetland areas as well as 3 samples from an off-site wetland area, which may be representative of background conditions. The general locations of the on-site samples are shown on Exhibit 2. Three groundwater samples and samples from the product in well MW-3 were also collected. The samples were analyzed for TCL organics and TAL metals and indicated the presence of both organic contaminants and metals at the sampled locations.

Potential Areas Where Pollutants May Have Been Released to the Environment

Based on existing information on historical site activities (including an analysis by the EPA of historical aerial photographs) and observations made during several site visits during the planning of the RI activities, the following potential source areas were identified at the site:

1) A former "lake" of oily wastes that covered approximately 5 acres in the southern portion of the property and extended off-site to the east.

2) Up to 6 former impoundments (lagoons or sludge ponds) for oily waste products that covered an area of approximately 5 acres located in the southern portion of the site (the source of the oil lake).
3) A potential "plume" of free-product light non-aqueous phase liquid (LNAPL) floating on top of the groundwater table observed at existing monitoring well MW-3.
4) The former AST farm, drum storage areas, and associated piping located to the south of the former oil reprocessing building, whose foundation is still in existence at the site.
5) A landfill that occupies approximately 7 acres of the site and contains materials of unknown nature or origin.

Section 3
Project Description

Section 3 Project Description

This section describes the objectives and activities that will take place as part of the Diamond Head Oil RI/FS. More detailed information may be found in the *Revised Work Plan Diamond Head Oil Remedial Investigation and Feasibility Study, December 2002.*

Project Objectives

The broad objectives of the RI/FS for the Diamond Head Oil Refinery Site are to obtain data on the nature and extent of soil, groundwater, surface water, and sediment contamination associated with the site, assess the associated human health and ecological risks, and evaluate appropriate remedial alternatives.

To meet these overall objectives, the Diamond Head RI/FS will be performed in two phases.

A Phase 1 remedial investigation will be performed to obtain information on contamination in areas of the site where there is currently no information; to delineate the extent of the LNAPL that is currently found in monitoring well MW-3 in the former lagoon area; and to investigate groundwater conditions at the upgradient and downgradient boundaries of the landfill and at the upgradient and downgradient boundaries of the site. The results of the Phase 1 investigation will then be used to determine whether a Phase 2 investigation is needed and to develop its appropriate scope. For example, during Phase 2, it may be appropriate to divide the RI/FS activities into two operable units: one for further investigation and delineation of on-site contamination and the second for investigation of off-site groundwater contamination.

The specific objectives for the Phase 1 investigation are outlined below. Because the objectives of the Phase 2 investigation will depend on the results of the Phase 1 investigation, the Phase 2 objectives listed below are preliminary and will be modified following completion of the Phase 1 investigation.

Objectives of the Phase 1 Investigation

- Delineate the on-site extent of the LNAPL and associated soil contamination in the former lagoon area and characterize the LNAPL material.
- Investigate soil contamination (surface and subsurface, above and below the peat/native organic soil layer) in areas where data are not available from previous investigations.
- Investigate soil contamination (surface and subsurface, above and below the peat/native organic soil layer) along the boundaries of the landfill.
- Investigate groundwater contamination along the upgradient and downgradient boundaries of the site and along the upgradient and downgradient boundaries of the landfill. Groundwater quality will be investigated above and below the peat/native organic soil layer.
- Investigate surface water and sediment contamination in areas of the site where data are not available from previous investigations and immediately downgradient from the site.

Preliminary Objectives of the Phase 2 Investigation

- On-site Investigation – Supplement the Phase 1 results and collect additional information - where needed – to meet the established Phase 2 objectives. Specific objectives may include delineating the extent of contamination identified during Phase 1 (e.g., investigating conditions within the landfill boundaries), investigating groundwater hydrogeologic conditions, and investigating further groundwater conditions beneath the peat/native organic soil layer.

- Off-site investigation - Delineate the extent of any groundwater contamination plume identified to originate from the site based on the Phase 1 results.

The *Revised Work Plan Diamond Head Oil Remedial Investigation and Feasibility Study, December 2002* describes in detail the investigation activities planned during the Phase 1 investigation. At the end of the Phase 1 investigation, EPA will evaluate the gathered information on site contamination and conditions and decide on the need for, objectives, and scope for the Phase 2 investigation. At that time, this CRP will be updated to include any planned Phase 2 activities.

Description of Remedial Investigation Activities

The remedial investigation activities will include the following:

- Mobilization of personnel, facilities, and equipment and site preparation
- Soil investigation activities
- LNAPL investigation activities
- Groundwater investigation activities
- Tidal investigation, groundwater flow direction determination, and measurements of LNAPL thickness
- Surface water and sediment investigation
- Waste management activities

Each of these activities is described below.

Mobilization and Site Preparation Activities

Before the start of the field investigation activities, field facilities and equipment will be mobilized to the site. The following facilities will be staged in the northern section of the site along Harrison Avenue:

- Two trailers to be used for office space and storage of equipment and supplies
- Trash dumpster
- Storage tank for RI-derived waste water
- Storage tank for clean water to be used in the RI activities
- Decontamination pad
- Staging area where drums containing RI-derived wastes (e.g., soil cuttings from borings) will be stored
- Field sanitary facility

In addition, the following services will be provided for the personnel performing the investigation:

- Water delivery to the storage tank; water will be delivered on an as-needed basis and used in the performance of the field investigation
- Removal of RI-derived water and other drummed waste; RI-water will be removed on an as-needed basis and the drummed waste will be removed at the end of the investigation activities
- Regular trash removal
- Electrical connection and electrical service
- Phone connection and phone service
- Ice supply for use in sample packaging
- Rental of various field sampling equipment

Because of the Phragmites covering the majority of the site, some of the Phragmites will need to be cleared to permit access to personnel and equipment to areas of the site targeted for investigation. This clearance will entail a one-time cutting of the Phragmites and underbrush along several lines transecting the site east to west and north to south. Each transect will be approximately 30 feet wide, and the cut vegetation will be removed from the site in order to reduce the potential for tick exposures by the field crews during the investigation activities.

Other logistical activities that will be performed include surveying of the property and all on-site features and clearing all selected sampling locations for buried utilities and other objects using surface geophysics methods.

Soil Contamination Investigation Activities

The Phase 1 RI will install and sample a total of 39 (35 shallow and 4 deep) soil borings. Preliminary locations are shown in Exhibit 3.

The 35 shallow soil borings will investigate the shallow subsurface soils and fill materials to the top of the organic material/peat layer estimated to occur at approximately 20 feet below the ground surface (bgs) at the site.

The shallow soil boring program will be implemented as follows:

- 13 soil borings with soil sampling will be completed and abandoned upon completing the sampling.
- 12 soil borings with soil sampling will be completed as piezometers in the area around existing monitoring well MW-3 (these soil borings will serve the dual purpose of investigating soil contamination in this area as well as the extent of the floating oil or LNAPL currently found in well MW-3 – see description of floating oil investigation below).
- 10 soil borings will be completed as permanent shallow wells (6 of these will include soil sampling; the remaining 4 will be completed as monitoring wells without soil sampling since soil sampling will be performed in the four deep borings, which will form couplets with these 4 shallow wells-see discussion below on deep borings).

Three soil samples will be collected from each shallow soil boring.

The 4 deep soil borings will investigate the shallow subsurface soils and fill materials, the organic material/peat layer, and the native soils immediately below this peat layer to a depth

of approximately 50 feet bgs. The focus of the deep borings is the evaluation of soil and groundwater conditions below the peat layer.

The deep soil boring program will be implemented as follows:

- 4 borings with soil sampling will be completed as permanent double cased deep monitoring wells.
- In addition to observations of lithology from soil core samples, the 4 deep borings will be logged using a downhole natural gamma geophysical tool.

Six soil samples (from the fill material, the peat layer, and the material below the peat layer) will be collected from each deep soil boring.

All soil samples from the Phase I RI will be analyzed for TCL organics and TAL metals. The samples will be analyzed through EPA's CLP.

Additional soil samples will be collected and analyzed for geotechnical engineering parameters; the results will be used in the evaluation of remedial alternatives.

The sequence of performing the boring program will be as follows:

- Install the 12 borings around monitoring well MW-3 and complete them as piezometers
- Install the 19 shallow soil borings, 6 of which will be completed as monitoring wells
- Install the eight borings (4 shallow and 4 deep) which will be completed as well pairs

All soil borings will be installed using the RotaSonic drilling technology.

Floating Oil Investigation Activities

A "floating oil" or as commonly referred to – a "Light Non-aqueous Phase (LNAPL)" - investigation will be performed to determine the extent of the floating oil currently found in monitoring well MW-3. The LNAPL investigation will consist of installing a minimum of 12 soil borings around monitoring well MW-3 for the following observations for the presence of LNAPL:

1. Visual observations of the soil cores obtained from the borings for evidence of staining or LNAPL trapped in the soil pores.
2. Collecting soil samples to undergo a Shake Test with the use of dye to evaluate whether LNAPL is trapped in the soil pores.
3. Installation of piezometers in the borings for measurements of LNAPL on the water table.

Additional borings may also be installed if deemed necessary in order to delineate the extent of the LNAPL.

Three soil samples will be collected from each of the 12 borings for the performance of a Shake Test with the addition of a dye. Additional samples may also be collected if deemed necessary in order to delineate the extent of the LNAPL trapped in the soil pores.

The Shake Test is a quantitative field screening test used to provide real-time data to be used in the evaluation of whether LNAPL is trapped in the soil pores. The test consists of combining a known volume of soil with a known volume of water in a clear glass jar. A hydrophobic dye is added, which colors any LNAPL (separated as free-phase following the shaking of the sample or remaining adsorbed to the soil particles) in red. Both the thickness of any observed LNAPL in the sample jar and the coloration within the soil matrix are recorded to serve as indication on whether LNAPL is trapped within the soil pores.

Groundwater Contamination Investigation Activities

The groundwater investigation will consist of the following:

- Installing monitoring wells in 10 of the shallow soil borings and in the 4 deep soil borings
- Developing the new and the existing wells to clear the screens and promote water / LNAPL flow into the wells
- Collecting groundwater samples from the new and the existing wells to evaluate groundwater contamination at the site
- Collecting a sample of the LNAPL found in well MW-3 to determine its characteristics

Exhibit 3 shows the approximate locations of the proposed monitoring wells at the site. The locations have been selected along the upgradient and downgradient boundaries of the site, as well as immediately upgradient and downgradient of the on-site landfill. A subset of the wells are also located upgradient, downgradient, sidegradient and within the area known to contain LNAPL around existing well MW-3.

The 10 shallow wells will have a maximum terminal depth of 20 feet bgs and the four deep wells will have an estimated depth of 50 feet. Between them, these wells will monitor the full saturated thickness of the fill materials occurring above the organic material/peat layer, and a section of the vertical sequence below the peat layer.

The groundwater samples will be analyzed for TCL organics and TAL total metals through EPA's CLP. In addition, groundwater from the shallow and deep well pair located immediately downgradient of the landfill will be sampled for various other groundwater quality parameters that will be used in the engineering evaluation of remedial alternatives.

The LNAPL sample will be analyzed for TCL organics, TAL metals, gasoline- and diesel-range organics (GRO and DRO), full Toxicity Characteristic Leaching Procedure (TCLP), hazardous waste characteristics (ignitability, corrosivity, and reactivity), and specific gravity.

Tidal Investigation, Groundwater Flow Direction Determination, and Measurements of Thickness of Floating Oil

A tidal investigation will be performed in the four well pairs (4 shallow wells and 4 deep wells) to evaluate the effects of tidal cycles on site hydrogeology.

Two rounds of groundwater elevation and product thickness measurements will be collected. The water level data will be used to generate groundwater elevation contour maps for the determination of groundwater flow directions. The product thickness measurements will be used to evaluate the extent and thickness of the LNAPL plume and its effects on groundwater quality at the site.

Surface Water and Sediment Contamination Investigation

Ten surface water and ten sediment samples will be collected at locations selected to support the ecological risk assessment and wetland delineation efforts at the site (see overview of risk assessment activities below). At least one sample will be collected downstream of the site at the confluence of the drainage ditch bordering the Diamond Head property and Frank's Creek. All surface water and sediment samples will be analyzed by EPA's CLP laboratories for TCL organics and TAL metals.

Waste From the Remedial Investigation Activities

Wastes will be generated during the remedial investigation activities. These wastes will consist of trash (boxes, paper, etc.), soil from the soil borings, water from the cleaning of equipment, water from the installation and sampling of the wells, and protective clothing used and discarded by the field personnel. The wastes will be accumulated on-site during the remedial investigation activities and disposed of at the end of these activities. Accumulation and disposal of these wastes is planned as follows:

- Trash and debris will be placed in a trash dumpster and removed and disposed of by a local garbage hauler throughout the duration of the field activities.
- Soil from soil borings and monitoring well installation will be collected in 55-gallon drums and the drums stored at a staging area established in the northern section of the site.
- Liquids from cleaning of the equipment, well installation, and well sampling will be collected in a 21,000-gallon tanker truck staged in the northern section of the site.
- Used protective clothing and equipment will be placed in 55-gallon drums, which will also be stored at the drum staging area.

All generated wastes will be disposed of at a licensed off-site disposal facility in accordance with applicable regulatory requirements.

Additional Tasks That Will be Accomplished in Support of the Remedial Investigation Activities

A site visit is planned at the start of the RI activities to gather information for:

- Performing a site-specific ecological risk assessment
- Delineating classified wetlands within the site boundaries

The wetland delineation will involve placing sequentially numbered flags along the jurisdictional boundaries of each identified wetland and water body at the site. The flagging will be left on-site so that field teams can orient themselves easily during field activities.

The limits of the wetland areas will be shown on the surveyed site plan that will be prepared for the site.

Description of Activities Following the Remedial Investigation

Data Reduction and Evaluation

Following data collection, the data will be organized, tabulated, plotted, and evaluated to assess the contamination that may have resulted from the site. The data summaries prepared during this task will be used in the preparation of the Technical Memorandum at the end of the Phase 1 RI and the Remedial Investigation report at the end of the Phase 2 RI (see below).

Remedial Investigation Report

At the end of the Phase 1 RI, a Technical Memorandum (TM) will be prepared to summarize the results of the Phase 1 RI and serve as the basis for discussions and determination of the need for, approach, and scope for the Phase 2 RI.

The preparation of a comprehensive report detailing the results of the completed Phase 1 and 2 (if performed) investigation activities, will begin at the conclusion of the Phase 2 activities. This report, commonly referred to as the RI Report, will summarize the objectives of the remedial investigation, the field investigation activities completed to meet these objectives during both the Phase 1 and 2 investigations, the nature and extent of the found soil and groundwater contamination, the contaminant fate and transport mechanisms, the risks associated with the site, and the conclusions of the study.

Risk Assessment Report

Once the type and distribution of contaminants in the soils and groundwater at the site have been characterized, a Risk Assessment (RA) will be prepared to evaluate the potential ecological and human health risk posed by the site. In order for a risk to occur, there must be contaminants present having known toxic characteristics, there must be potential exposure pathways (or migration routes along which the contaminants may travel to a receptor), and there must be receptors that may be exposed to these contaminants. The risk assessment procedures will address these issues by analyzing the Diamond Head Oil site from a source-pathway-receptor viewpoint and by evaluating the potential human health and ecological risks based on probable exposure scenarios. The assessment will evaluate current as well as potential future risks posed by the site.

Feasibility Study Report

The Feasibility Study (FS) begins after the RI Report and Ecological and Heath Risk Assessments are completed. The purpose of the FS is to determine an appropriate remedial response for the conditions at the Diamond Head Oil site identified as posing unacceptable human health or ecological risks. The remedial response to be selected in the FS will consist of actions which will eliminate unacceptable risks or reduce them to levels which are protective of human health and the environment. The FS will cover the following: (1) identification of the objectives of the remedial response; (2) identification of technologies appropriate to site conditions; (3) development of remedial alternatives; and (4) evaluation of those alternatives. The FS report will propose, based on the results of the alternative evaluation, implementation of the most cost-effective remedial action alternative, if remedial action is needed, which satisfies or exceeds the remedial objectives.

Project Schedule

Table 1 lists major project milestones for the Phase 1 activities and their tentative start and finish dates. The schedule for the RI and FS reports will be determined after the need for, scope, and schedule of the Phase 2 RI are determined.

Table 1
Approximate Schedule of Project Milestones

Project Tasks	Approximate Start and Finish Date (months)
Mobilization of equipment and facilities to the site	April 2003
Soil Borings Installation	May – June 2003
Monitoring Well Installation	May – June 2003
Ground Water Sampling	June – July 2003
Hydrogeologic testing	June – July 2003
Surveying	April 2003
Phase 1 Data Evaluation	October – December 2003
Determination on the need for Phase 2	January 2004
RI Report Preparation	To be determined based on the need for and scope of the Phase 2 RI
Risk Assessment Report Preparation	Same
Feasibility Study Report Preparation	Same

Section 4
Community Concerns and Information Needs

Section 4 Community Concerns and Information Needs

This section provides an overview of the community profile and the typical concerns, which communities around Superfund sites have. Community interviews were not conducted as part of the preparation of this plan. As information on the community and its actual concerns, is gathered during contact with the community as the project progresses, the CIP will be updated as appropriate, to reflect this information.

Community Profile

The Diamond Head Oil site is located in the Township of Kearny, Hudson County. The Township – with a total area of 9.3 square miles – was founded on March 14, 1867 and is governed by a Mayor and four elected council members. The Township has a population of approximately 40,000, in approximately 13,500 households with an average household size of 2.81 and an average family size of 3.28. The median age of the population is approximately 35 years; approximately 10 percent of the population are over 65 years old and another 20 percent are less than 19 years old. The median household income is approximately $47,000 and the median family income is approximately $55,000.

Approximately 70 percent of the population which is 25 years or older (approximately 27,500 of the Township's residents) have high school or higher education; approximately 17 percent have a bachelor or higher college degree. Approximately 25,000 of the Township's residents are of native American origin and the rest are foreign born. Approximately 18,000 of the Township's residents speak English at home, and the rest speak languages other than English. Approximately half of the Township's population have resided in the same house in the Township since 1995. From the Township's population which is 16 years and older (approximately 32,000 residents), approximately 17,700 are employed. Residents live in houses, attached houses, apartment complexes, co-ops, and condos. There are approximately 14,000 housing units in the Township with nearly 10,000 of them consisting of 2 or more units attached together.

Of note, the Diamond Head Oil site is located in an industrial section of Kearny with no residents in the immediate vicinity of the site.

Community Concerns and Information Needs

This section describes the typical concerns and information needs that a community may have when a Superfund site located within the community is being investigated. A general discussion of the typical concerns is provided below followed by a description of how these concerns are being addressed at the Diamond Head Oil site. This section will be supplemented and expanded as needed, after the public availability session or open house, which will be held at the start of the remedial investigation activities. The open house will provide the community with opportunities to ask questions, voice their opinions and concerns about site activities, and learn more about the Superfund program and the activities that will take place at the site. Several weeks before the open house, its location will be publicized in order to maximize community participation. Based on the discussions during the open house, any additional concerns that the community may have, will be added

to the list of concerns described below. Actions, which will be implemented to respond to these additional concerns will also be identified.

The typical concerns that a community may have center around the following:

- Need for information about the nature and extent of the contamination associated with the site and its health and environmental effects.
- Communications with officials responsible for the investigation and cleanup process.
- The remedial investigation and remedy implementation process.
- The effectiveness of the proposed remedial action.
- The potential for the investigation or the remedial action itself to impact property values.

Need for information about the nature and extent of the contamination associated with the site. The community is typically concerned about the nature and extent of the contamination associated with the site and its health and environmental effects. Within this context, common concerns center around whether contamination has migrated off-site and how the community may come into contact with the contamination on-site or off-site.

The RI/FS at the Diamond Head site will investigate the nature and extent of the on-site contamination during the Phase 1 RI. Based on the results of the Phase 1 RI, additional on-site and / or off-site investigation may be performed during a Phase 2 RI. Combined, the Phase 1 and 2 results will be used to assess and provide the public with information on the extent of the contamination associated with the site and its potential human health and environmental effects.

Under current site conditions, the potential for the surrounding community to contact contamination on the Diamond Head Oil site appears to be fairly limited. The site is currently fenced, which reduces the potential for contact with on-site contaminated soils by trespassers onto the property. While it is not known whether site contamination presents air concerns, the vast majority of the site is covered by vegetation and shows signs of regular flooding. These site conditions are expected to diminish the potential for dust-borne contaminants and associated exposures to these by the surrounding community. Finally, the surrounding community receives its drinking water from a public water supply, which provides water conforming to drinking water standards. Thus, the surrounding community is not expected to drink water from the aquifer beneath the site, which may be contaminated as a result of the site.

During the remedial investigation activities, the security fence will be maintained around the site perimeter to prevent trespassers from coming onto the property. No significant air emissions are expected during the investigation activities because these activities will involve drilling into the subsurface soils but not their excavation, which typically would expose the contamination and result in significant contaminants transfer to the air. Irrespective of this, the air will be monitored during the investigation activities.

To address long term concerns, the RI/FS at the Diamond Head Oil site will evaluate the need for and remedies appropriate to the contamination found at the site.

Information about the health effects associated with the site contamination. The community is typically concerned about what effects the site contamination may have on human health.

To respond to this concern, and assessment of the human health risks associated with site contamination will be completed as part of the project and described in the Risk Assessment Report. During the remedial investigation activities, as noted above, a security fence will be maintained around the site. Also, the surrounding community will continue to receive water from the public water supply system, which provides drinking water conforming to established drinking water standards.

Once the Risk Assessment Report is completed, a public meeting will be held to communicate its content to the community and answer questions.

Information about the effects of the site on the environment. The community is typically concerned about the effects that the site may have on the environment and environmental receptors.

The Diamond Head Oil site is located in a commercial/industrial section of Kearny. There are no structures currently at the site. Phragmites cover the majority of the site, which also shows evidence of regular flooding. There appear to be some wetland areas at the site.

To evaluate the site's potential effects on the environment, both an ecological risk assessment and a wetlands delineation study will be performed as part of the RI/FS.

Communications with officials responsible for the investigation and cleanup process. The community is often concerned that it be informed accurately and in a timely manner about the remedial activities at the site as well as about their results and conclusions. The community is often startled by sudden activity at the site and alarmed by long periods of inactivity. The community likes to know what activities are scheduled to occur and when, what the results of these activities are, and when those results can be expected.

In the next section, this plan addresses the above concerns by establishing various community involvement tools and activities, which will be used to communicate with the community.

The remedial investigation and remedy implementation process. The community typically wants to know what the remedial investigation will entail and how the site will be cleaned up, whether materials would need to be excavated and trucked off-site and the routes that they would take, and how will on-site activities be managed to prevent nuisance and ensure safety.

The remedial investigation activities that will take place are described in this CIP and will be the subject of a fact sheet prepared and distributed to the community around the site. A public availability session or open house will also be held to discuss with the community the RI activities.

After all the data from the remedial investigation activities are received and evaluated, a feasibility study will be conducted to evaluate various alternatives for cleaning up the site. This study will consider the various actions, which will need to be taken to address the community's nuisance and safety concerns during remedy implementation.

The results of the study will be documented in the Feasibility Study Report. Once the report is completed, a fact sheet will be prepared to describe the selected remedy and a public meeting will be held to discuss the proposed remedy with the community.

The effectiveness of the proposed remedial action. The community is typically concerned whether the remedial response action will be effective in cleaning site contamination.

To address this concern, the feasibility study will evaluate a variety of alternatives which achieve different levels of site clean up. The study will estimate the effectiveness of the selected alternative in achieving the established targets for the clean up. This will be communicated during the public meeting to be held following completion of the feasibility study.

The potential for the investigation or the remedial action itself to impact property values . The community is typically concerned about the potential for loss in property values as a result of the contamination at the site, the ongoing investigation activities, and the implementation of the final selected remedy.

The Diamond Head Oil site is currently undeveloped. Remnants of the foundations of the former building and tanks are still present at the site as well as a landfill. The objectives of the RI/FS are to remedy current site conditions in a manner that would allow the future beneficial use of the property. Potential future plans for the property by the current owner include development for an office building. The development and revitalization of the property is expected to be beneficial to the neighborhood.

Section 5
Community Involvement Program

Section 5 Community Involvement Program

Throughout the Superfund process at the site, EPA will conduct a Community Involvement Program to address the concerns and issues important to the community and foster communication between the Agency and those interested in correcting the contamination problems at the site. The Superfund program emphasizes the importance of community involvement, and the Community Involvement Program will ensure that community members have ample opportunity to voice their opinions and receive answers to their questions.

Community Involvement Objectives

The objectives of EPA's Community Involvement Program at the Diamond Head Oil site are to:

- Contact residents and businesses near the site to ensure that they have opportunities to become involved in the process.
- Maintain open communication between EPA and the community, its leaders, local, state and Federal government agencies and officials, and other interested persons or groups. This communication will be established early in the Superfund process, and will be maintained for the duration of the project.
- Provide residents, agencies, local officials, community and business leaders, and the media with accurate, timely information about the Superfund process, the progress of the RI/FS, and other crucial technical and administrative matters. This will give the community the tools that it needs to provide meaningful input into the decision-making process.

Community Involvement Activities

The following community involvement activities are planned for the Diamond Head Oil site.

Ongoing Contact with Community Members

While remedial investigation activities at the site progress, EPA staff will be available for contact with members of the community either by phone or in person. Attachment B contains a list of key contacts for the project from EPA as well as state and local agencies and government.

The following EPA staff are available to answer questions about the site:

Grisell Diaz-Cotto
Project Manager
U.S. EPA Region II
New York Remediation Branch
290 Broadway

New York, New York 10007
(212) 637-4430

..... ????
Community Involvement Coordinator
U.S. EPA Region II
290 Broadway
New York, New York 10007
(212) 637-.....

When appropriate, informal briefings will be held for elected officials and other community members to keep them abreast of activities at the site.

Establishing Information Repository and Administrative Record

Information repositories are a valuable source of technical information about a site and the Superfund process in general. Information repositories for the Diamond Head Oil site will be established at the location below.

Kearny Public Library
318 Kearny Avenue
Kearny, NJ 07032
201-988-2666

The documents that will be maintained in the repository may be obtained by requesting the files for the Diamond Head Oil RI/FS. The documents held at this location will be updated as necessary with the most current information about site activities.

The following documents will be stored at the repository after they are finalized and approved by EPA:

- Remedial Investigation and Feasibility Study Work Plan
- Community Involvement Plan
- RI/FS Fact Sheets
- Remedial Investigation Report
- Risk Assessment
- Feasibility Study Report
- Sampling and Analysis and Quality Assurance Project Plan
- Proposed Plan
- Responsiveness Summary
- Media notices, newsletters, etc.

Once the information repository is established, a notice will be posted in local government offices and at the site indicating the availability of documents and their location. A subsequent notice will be posted to inform citizens of the time and location of the public availability session or open house planned at the start of the remedial investigation activities and the availability of a fact sheet on the planned activities.

In addition to the information repository, an administrative record will be established at EPA Region II's offices in New York City. This record will include documents that EPA considers

or relies upon in selecting the remedial response action.

Information on the Superfund program and the Diamond Head Oil site can also be obtained from the following World Wide Web pages:

http://www.epa.gov/superfund

http://www.epa.gov/region02/superfnd/site_sum/..... .htm **(????NEED SITE's WEB ADDRESS)**

Developing and Distributing Fact Sheets

Fact sheets are important tools for communicating with the community. They contain clear, accurate descriptions of technical information for the site - prepared in a style and format that encourages use and understanding. Two fact sheets will be prepared to keep the community informed about the Diamond Head Oil RI/FS.

The first fact sheet will be prepared before the start of the RI/FS activities and will provide background information on the site and an overview of the planned activities. The fact sheet will discuss:

- The Superfund process
- The purpose, goals, and schedule of the RI/FS
- Current knowledge about contamination problems at the site
- How the RI/FS will be conducted
- When information will be available
- Who should be contacted for more information

The second fact sheet will be prepared after the completion of the RI/FS to explain the findings of the study. The fact sheet will describe the findings of the remedial investigation, the cleanup alternatives considered, the proposed alternative (Proposed Plan), and the criteria used to choose the proposed alternative. The fact sheet will also describe how the community can be involved in the alternative selection process by participating in the Proposed Plan Public Meeting. A notice of the availability of the proposed plan will be published in a local newspaper.

Both fact sheets will be filed at the Information Repository established for the site at the Kearny Public Library. They will also be distributed to local residents and officials on the site mailing list, made available at the open house held at the start of the RI activities and the public meeting held to present and discuss the Proposed Plan, and publicized in public notices in local newspapers.

Posting of Notices to Announce Meetings and the Availability of Information

EPA will post two notices at the site, library and local government offices announcing the following:

1. Before the start of the RI/FS activities: The time and location for holding an open house or availability session; the availability of information and where it can be found (i.e., the

information repository); and the availability of a fact sheet describing the site and planned activities.

2. At the end of the RI/FS activities: The availability of the RI and FS Reports and Proposed Plan, the availability of the Proposed Plan Fact Sheet, the time and location of the public meeting on the Proposed Plan, the start of the 30-day public comment period on the Proposed Plan, and instructions on how the public can participate in the selection process and submit comments to the Agency.

The notices will be posted two weeks before these activities. Copies of the notices will be maintained at the Information Repository established for the site at the Kearny Public Library.

Holding An Open House and a Public Meeting

EPA will hold an open house or availability session at the start of the RI/FS and a public meeting during the 30-day public review period for the Proposed Plan.

The open house at the beginning of the project will provide residents, community leaders, public officials, news reporters, and others with opportunity to receive information and ask questions about site contamination, the activities planned to address this contamination, and the Superfund program. The open house will include a project overview from EPA and a question and answer period. Copies of the fact sheet describing the site and planned activities will be made available during the meeting.

The public meeting held after the Proposed Plan is prepared will give the community an opportunity to give and receive feedback regarding site activities. EPA will hold a public meeting during the 30-day public comment period on the Proposed Plan so that community members can express their views on the recommended remedy for the site. A news release and a fact sheet seeking comments from interested parties and inviting the community to the public meeting will be distributed at least two weeks before the beginning of the comment period. As with the open house held at the beginning of the project, the public meeting will include an overview from EPA on the results of the RI/FS and the Proposed Plan and a question and answer period during which the community may comment on the Plan. The community will also be advised where they can submit written comments, should they so desire. Copies of the fact sheet describing the Proposed Plan will be made available during the meeting.

A certified court reporter will make a transcript of the proceedings of the public meeting. This transcript will be made available for public review at the Information Repository established for the site at the Kearny Public Library.

Preparing A Responsiveness Summary Addressing the Community's Comments on the Proposed Plan

After the comment period and public meeting, EPA will prepare a summary of the written and oral comments made by the public on the RI and FS Reports and Proposed Plan and the way the Agency considered or addressed these comments. The Responsiveness Summary will be made available for public review at the Information Repository established for the site at the Kearny Public Library and will also accompany the final remedial action plan prepared by EPA.

Developing and Maintaining a Mailing List

Throughout the project, EPA will continue to maintain a mailing list for distributing information to the community. The mailing list will include residents and businesses near the site, community groups, environmental organizations, representatives from the news media, and local, state and Federal officials. EPA will update and expand the list as the project progress.

Community Involvement Program Time Frame

Community Involvement activities are timed to coincide with the technical milestones in the RI/FS process or as-needed to address community concerns. The schedule for the community involvement activities in relation to the overall RI/FS schedule is shown in Table 2.

Table 2
Schedule for Community Involvement Activities in Relation to Project Tasks

Community Involvement Activities in Relation to Project Tasks	Approximate Start Date
Prepare CIP, pre-RI/FS fact sheet, mailing list	April – May 2003
Establish Information Repository	April – May 2003
Post Fact Sheet	April – May 2003
Public Notice on CIP, Fact Sheet, Information Repository, and Public Availability Session	April – May 2003
Conduct Public Availability Session	May – June 2003
Begin Phase 1 remedial investigation activities	May – June 2003
Phase 1 Data Evaluation	October – December 2003
Determination on the need for Phase 2	January 2004
Conduct Phase 2 remedial investigation activities	To be determined based on the needed Phase 2 RI scope
Prepare RI Report	Same
Prepare Risk Assessment Report	Same
Feasibility Study Report Preparation	Same
Proposed Plan	Same
Prepare fact sheet on RI/FS results and Proposed Plan	Same
Public Notice on CIP, Fact Sheet, Information Repository, and Public Availability Session	Same

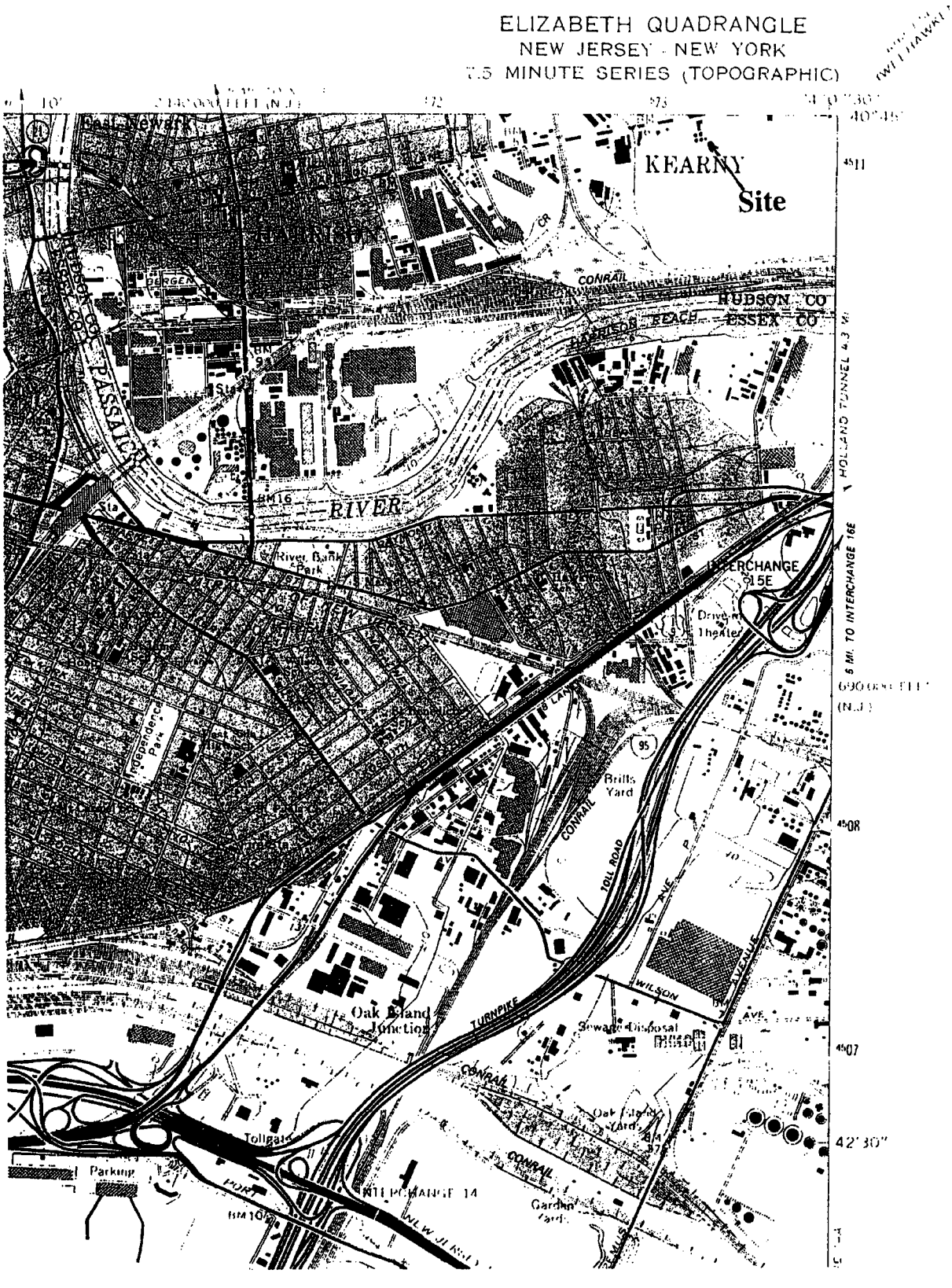
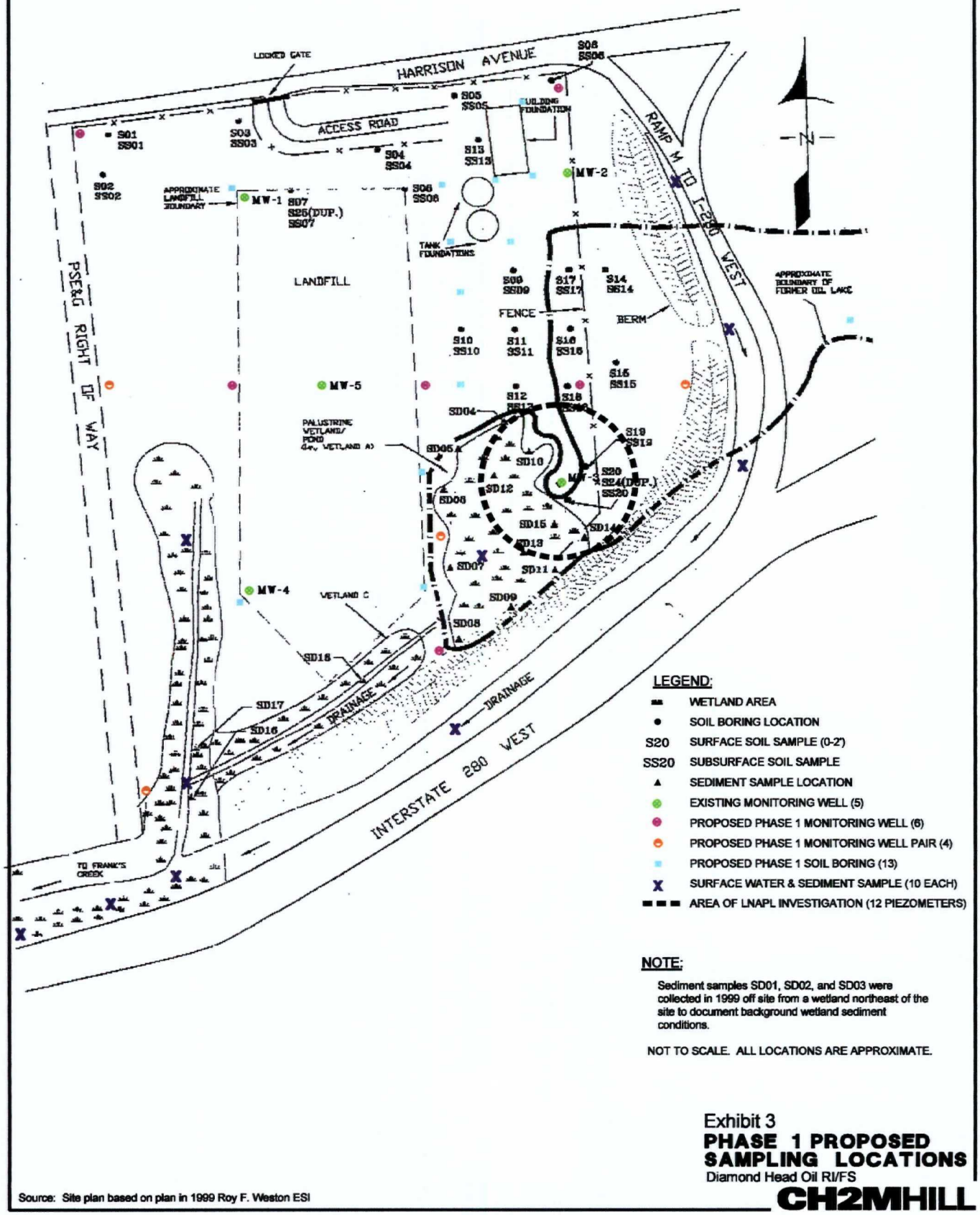


Exhibit 1
Diamond Head Oil
Site Location Map

f03-173044.dgn 24-JAN-2003



NOTE:

Sediment samples SD01, SD02, and SD03 were collected in 1999 off site from a wetland northeast of the site to document background wetland sediment conditions.

NOT TO SCALE. ALL LOCATIONS ARE APPROXIMATE.

Exhibit 3

PHASE 1 PROPOSED SAMPLING LOCATIONS

Diamond Head Oil RI/FS

Source: Site plan based on plan in 1999 Roy F. Weston ESI

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Attachment A
Glossary of Key Terms

Attachment A Glossary of Key terms

Availability Session: Scheduled gathering of EPA staff and the public in a setting less formal than a public meeting. Encourages "one-to-one" discussions in which the public meets with EPA staff on an individual or small group basis to discuss particular questions or concerns.

CERCLA: The Comprehensive Environmental Response, Compensation and Liability Act, commonly called Superfund, as amended in 1986.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A Federal law passed in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act. CERCLA created a special tax that went into a Trust Fund, also known as Superfund, to support investigation and cleanup of abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either:

- Perform site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work; or

- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

Community Involvement: A process to inform and involve the interested/affected public in the decision-making process during identification, assessment and remediation of inactive hazardous waste sites. This process helps to assure that the best decisions are made from environmental, human health, economic, social and political perspectives.

Community Involvement Coordinator (CIC): The EPA or State official responsible for overseeing and directing public involvement activities for a site.

Community Involvement Plan (CIP): A document that outlines Agency efforts to establish communication with the public. The CIP is designed to create understanding of EPA programs and related actions, to assure public input into the decision-making process in an affected community, and to make certain that the Agency is aware of and responsive to public concerns. Specific community involvement activities are required during Superfund remedial actions.

Information Repository: Typically a public building such as a library near a particular site, where documents related to the remedial and community involvement activities at the site are available for public review.

Fact Sheet: A concise and clear presentation of information prepared for the public in easily understandable language.

Ground water: Water found beneath the earth's surface that fills cracks and pores in layers of sand, soil, and rock. When ground water occurs in sufficient quantities, it can be used as source of water for drinking, and other purposes.

Mailing List: Names, addresses and/ or telephone numbers of individuals, groups, organizations and media interested and/ or affected by a particular hazardous waste site.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The Federal regulation that provides a blueprint for Superfund program operations.

National Priorities List (NPL): EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response using money from the Trust Fund. The list is based primarily on the score a site receives from the Hazard Ranking System. EPA updates the list at least once a year.

Project Manager: An EPA staff member responsible for the day-to-day administration of activities at a site.

Public Meeting: A scheduled gathering of EPA staff and the public to give and receive information, ask questions and discuss concerns.

Public Notice: A written or verbal announcement of an upcoming milestone in site activities (e.g., announcement that a report is publicly available; a public meeting has been scheduled).

Responsiveness Summary: A written summary and response prepared by the EPA to public questions and comments on the Proposed Plan. The responsiveness summary may list and respond to each question, or summarize and respond to questions in categories.

Remedial Investigation/Feasibility Study (RI/FS): Two distinct but related studies. They often are performed at the same time and together referred to as the "RI/FS." These studies are intended to:

- Gather the information necessary to determine the type and extent of contamination at a Superfund site;
- Establish criteria for a site remedy;
- Identify and screen alternatives for remedial action, and analyze in detail the technology and costs of the alternatives.

Superfund: The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act.

Attachment B
List of Federal, State, and Local Contacts

Attachment B List of Federal, State, and Local Contacts

Project Contacts

U.S. Environmental Protection Agency:	Grisell Diaz-Cotto Project Manager 290 Broadway New York, NY 10007 212-637-4430
	???? Community Involvement Coordinator U.S. EPA Region II 290 Broadway New York, New York 10007 212-???????
New Jersey Department of Environmental Protection	????? Project Manager New Jersey Department of Environmental Protection Address??? Phone ???
New Jersey State Department of Health	Contact Name Department Address Phone
	OTHER???

County and State Officials

United States Senators	Jon Corzine Gateway 1 – 11th Floor Newark NJ 07102 973-645-3030
United States Congressman	Robert Menendez 911 Bergen Avenue Jersey City NJ 07306 201-222-0188
	Steven Rothman 130 Central Avenue Jersey City, NJ 07306 210-798-1366
NJ State Assemblymen	Elba Perez-Cincirelli

	District 31 1738 Kennedy Boulevard Jersey City, NJ 07305 201-209-9499
	Joan Quigley District 32 242 Tenth Street Suite 101 Jersey City, NJ 07302 201-217-4614
	Rafael Fraguela 4808 Bergenline Avenue Union City, NJ 07087 201-863-3355
NJ State Senator	Joseph Charles 1738 Kennedy Boulevard Jersey City, NJ 07305 201-451-6120
Hudson County Freeholder Representing Kearny	Albert Cifelli Administration Building Annex 567 Pavonia Avenue Jersey City, NJ 07036 201-795-6001
Hudson County Executive	Thomas DeGise 583 Newark Avenue Jersey City, NJ 07036 201-795-6200
Hudson County Clerk	Janet Haynes County Clerk Justice Brennan Court House 583 Newark Avenue Jersey City, NJ 07036 201-7952581
Hudson County Sheriff	Joseph Cassidy Administration Building 595 Newark Avenue Jersey City, NJ 07036 201-795-6000
Hudson County Improvement Authority	Thomas Calvanico 574 Summit Avenue 5th Floor Jersey City, NJ 07036 201-795-4555

Hudson County Chamber of Commerce and Industry	Peter Murphy 253 Washington Street Jersey City, NJ 07302 201-435-7400
Hudson County Dept. of Health and Human Services	Carol Ann Wilson Meadowview Campus 595 County Road Secaucus, NJ 07094 201-271-4310
OTHER???	OTHER???
Kearny Officials	
Mayor	Alberto Santos 402 Kearny Avenue Kearny, NJ 07032 201-955-7979
Council Members	Peter Cicchino Barbara Sherry James Mangin Anthonia Paglia 402 Kearny Avenue Kearny, NJ 07032 201-955-7979
Department of Health	John Sarnas 402 Kearny Avenue Kearny, NJ 07032 201-997-0600
Municipal Court / Court Administrator	Nancy Waller 404 Kearny Avenue Kearny, NJ 07032 201-997-1980
Clerk	Doreen Cali 402 Kearny Avenue Kearny, NJ 07032 201-955-7400
Department of Public Works	James Waller 357 Bergen Avenue Kearny, NJ 07032 201-998-3700
Fire Department	201-991-1402
Police Department	201-998-1313
Kearny Public Library	318 Kearny Avenue Kearny, NJ 07032

201-988-2666

OTHER???

OTHER???